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DERWENT-WEEK: 200147

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TITLE: Vertical diffusion furnace for manufacturing semiconductor

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PATENT-ASSIGNEE: SAMSUNG ELECTRONICS CO LTD [SMSU]

PRIORITY-DATA: 1999KR-0022267 (June 15, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
MAIN-IPC			
KR 2001002453 A	January 15, 2001	N/A	001
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APPLICATION-DATA:

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INT-CL (IPC): H01L021/22

ABSTRACTED-PUB-NO: KR2001002453A

BASIC-ABSTRACT:

NOVELTY - A vertical diffusion furnace for manufacturing a semiconductor is provided to improve process uniformity regarding every portion of a wafer and according to the positions of the wafers stacked in a vertical boat, by stabilizing a gas flow, and by supplying a uniform gas distribution in a quartz tube.

DETAILED DESCRIPTION - A vertical diffusion furnace for manufacturing a semiconductor comprises a process tube(12), a vertical boat(20), a shower head(16), an injector(14) and an exhausting opening(18). The process tube is of a vertical type, of which a lower part is opened. Wafers are inserted from the open portion of the process tube and loaded in the vertical boat. The shower head has an opening in which the vertical tube is located, established in a lower portion of the process tube. The injector is established in a lower

portion of the process tube so that the injector is located under the shower head. Process gas is induced into the process tube through the injector. The exhausting opening is established in a central portion of an upper part of the tube, through which the process gas is exhausted.

CHOSEN-DRAWING: Dwg. 1/10

TITLE-TERMS: VERTICAL DIFFUSION FURNACE MANUFACTURE SEMICONDUCTOR

DERWENT-CLASS: U11

EPI-CODES: U11-C02A;

10

